

## 2011en / 2023en Emissions Modeling Change Summary

The EPA updated emissions for 2023 based on (1) comments received as a result of the Notice of Data Availability (NODA), (2) new inventory data becoming available in the intervening time, and (3) improved emissions modeling methods and data. These improvements in the emissions modeling platform are described below.

The labels in each of the headings below (e.g., “cmv”, “nonpt”, etc.) are the names of the emissions modeling sectors as described in the emissions modeling technical support documents for the modeling platform released with the NODA.

### cmv: base + future-year updates

- The “cmv” emissions modeling sector was split into two emissions modeling sectors: “cmv\_c3” (for Category 3 vessels) and “cmv\_c1c2” (for Category 1 and 2 vessels). The “near-shore” Category 3 (C3) emissions in the cmv\_c3 sector are now modeled as point sources with plume rise, which is now consistent with the previous platform for C3 vessels for farther from shore. The c1c2 sector emissions are still kept in the air quality model layer 1, but an improvement has been made in the grid cell spatial allocation using a new spatial surrogate, based on data from marinecadastre.gov.
- Note: farther from shore C3 emissions have been combined with the near-shore C3 emissions into the cmv\_c3 sector and are no longer in the “othpt” modeling sector. Offshore oil and gas platforms are still in othpt.

### nonpt: base + future-year updates

- Small change to VOCs in New York for "Commercial/Institutional;Natural Gas;Total: Boilers and IC Engines" and "Residential;Natural Gas;Residential Furnaces".

### nonroad: base + future-year updates

- No emissions value changes.
- Temporal profile updates for nonroad construction, lawn/garden (residential and commercial), and agriculture; primarily to put fewer emissions in overnight hours and refine weekday/ weekend split. The change in the weekday / weekend split results in very small differences to annual total emissions.

### ptnonipm (non-EGU point): base + future-year updates

- Some Connecticut units moved between nonEGU and EGU inventories (affects base year)
- Many updates in this sector including the additional the Maximum Achievable Control Technology (MACT) Boiler controls for North Carolina, controls in Virginia, consent decrees in Illinois, newly included New Source Performance Standards (NSPS) subpart JA for refineries, new units requested in a few states (e.g., Delaware, Virginia, Wisconsin), and updated closures including state comments

### ptegu: base + future-year updates

- Some Connecticut units moved between nonEGU and EGU inventories
- Stack parameter and location updates
- Flattened temporalization for municipal waste combustors (MWCs) and co-generation units
- Texas request to use annual inventory instead of CEMS for one source
- Engineering analysis method for future year EGUs

beis: base and future-year updates

- Very minor corrections to land use inputs for Florida, Texas, and Washington

np\_oilgas, pt\_oilgas: future-year updates only

- Updated to use an approach that incorporates historic state-specific data from 2011-2015 and AEO2017 regional data from 2015-2023; for Texas we received a 2014 inventory and projected that forward to 2023
- Control factors were updated to reflect the updated growth rates
- See write up presented to states/RPOs on 8/24/17 for more details

Canada: base and future year updates

- New emissions inventories from Environment Canada for 2013/2025 that included CB6 speciation plus updated spatial surrogates and temporal profiles
- The airport inventory is now monthly instead of annual

Mexico: base and future-year updates

- No emissions value changes
- A new population-based spatial surrogate was applied to relevant sources